

What is claimed is:

Sub A1  
1 1. A method of conserving power consumption in a communication system which includes  
2 components capable of selectively entering a low power mode and an auto-negotiation feature by  
3 exchanging messages indicative of a low power mode capability, using an auto-negotiation  
4 feature to interpret exchanged signals to verify that connected systems include the low power  
5 mode capability, and transmitting a signal that a communications session is completed to cause  
6 connected systems to enter the low power mode.

1 2. The method of claim 1 wherein said auto-negotiation feature is a next-page facility.

1 3. The method of claim 1 including a further step of employing the auto-negotiation feature  
2 further to verify that the connected systems are eligible to enter the low power mode.

1 4. In a system utilizing a data communication device having a plurality of data exchange modes,  
2 each of said modes operating at different speeds, one of which speeds consumes less power than  
3 another, protocol means for compatibly coupling said data communication device to another  
4 data communication device for exchanging data therebetween, and selection means in said data  
5 communication device for a data exchange mode having a higher speed than the others, a method  
6 for switching to a least power consuming speed which consumes when in an idle mode by  
7 exchanging data representative of said data communication devices ability to operate at the least  
8 power consuming speed, decoding via said protocol means said representative data, and changing  
9 to said least power consuming speed in response to another protocol signal.

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1 5. In a local area network which includes Ethernet data terminal equipment capable of low power  
2 modes and employing auto-negotiation, a method for conserving power consumption during  
3 periods of low usage by using a next-page aspect of the auto-negotiation feature to communicate  
4 among terminal data equipment each equipment's capability to assume a low power mode,  
5 detecting periods of low network usage, verifying in response to detection of low network usage  
6 that each equipment is eligible to assume the low power mode by use of the auto-negotiation  
7 feature, and asserting signals to put each eligible equipment in a low power mode of operation.

Add A17